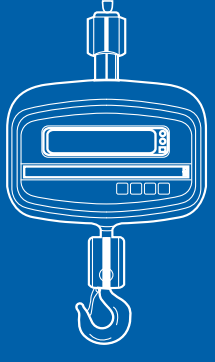
INDUSTRIAL WEIGHING SOLUTION™

NC-I SERIES

Crane Scale



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OWNER'S MANUAL

CAS

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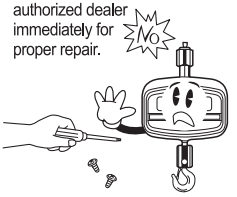
PRECAUTIONS

⚠ Warning

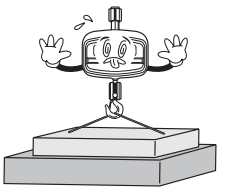
Turn power switch off on rear panel when you don't use the scale for a long time.

Do not disassemble the scale.

When any damage or defect occurs, contact your CAS authorized dealer immediately for proper repair.

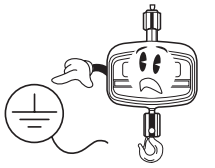


Do not overload beyond the maximum weight limit.



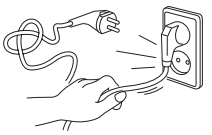
Scale must be grounded to minimize electricity static.

This will minimize defect or electric shock.

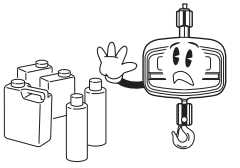


Do not pull the plug by its cord when unplugging.

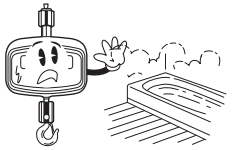
Damaged cord could cause electric shock or fire.



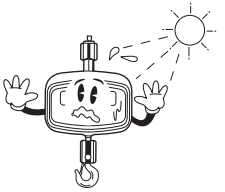
To prevent from fire occurring, Do not place or use the scale near flammable or corrosive gas.



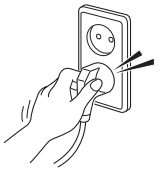
To reduce electric shock or incorrect reading, Do not spill water on the scale or place it in humid condition.



Avoid placing the scale near heater or in direct sunlight.

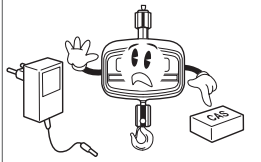


Insert plug firmly to wall outlet to prevent electric shock.



Use proper Adapter.

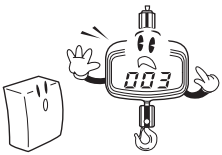
Incorrect adapter could damage the scale.



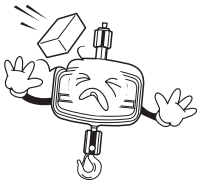
⚠ Attention

Do not stand under the scale while weighing the load, and you should be careful to provide against a safety accident.
To install, safety pin in hook should be fixed to prevent dropping out from lift eye bolt.

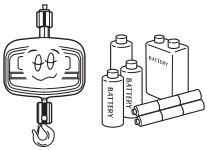
For consistent and accurate reading, maintain periodical check by your CAS authorized dealer.



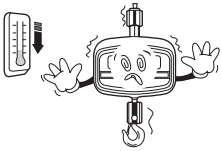
Avoid sudden shock to the scale.



Take the battery out when scale is not in use for long time. Leakage from the batteries is hazardous.

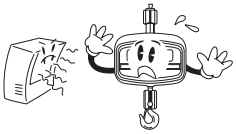


Place the scale on firm and temperature consistent environment.



Keep the scale away from other electromagnetic enerating devices.

This may interfere with accurate reading.



INSTRUCTION

We greatly appreciate your purchase of the **NC-I.**
These goods perform excellently and exhibit splendid properties through strike tests.
Before using the **NC-I**, it is recommended that you read this manual carefully so you may use this device to its full potential.

FEATURES

Appropriate hoist scale for industrial field
Useful Zero, Tare and Hold function
Weight Back-Up
Easy to move
Be able to control with remote controller

MAIN FUNCTIONS

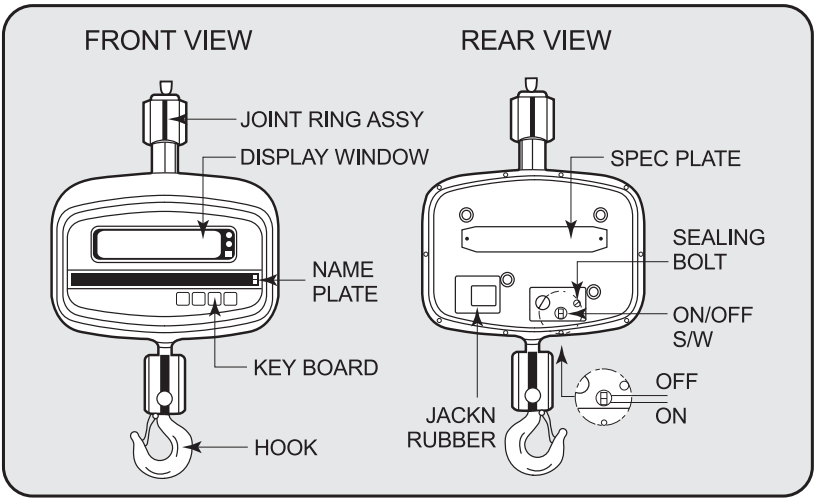
User can change the stable condition and range of digital-filter at user's option
Self Hardware test (internal A/D value, Battery power, key and etc)

TECHNICAL SPECIFICATION

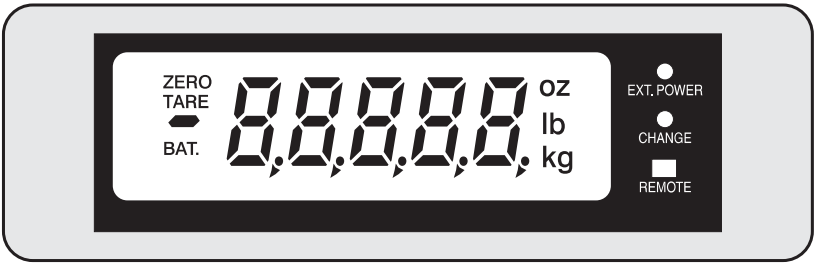
Kilogram	**Max Capacity**	20kg	30kg	50kg	100kg	200kg	500kg
	Division	10g	10g	20g	50g	100g	200g
kg/lb version	**Max Cap**	200lb(100kg)		400lb(200kg)		1250lb(500kg)	
	Division	0.1lb(0.05kg)		0.2lb(0.1kg)		0.5lb(0.2kg)	
U.S.A version	**Max Capacity**	250lb(125kg)		500lb(250kg)		1000lb(400kg)	
	Division	0.1lb(0.05kg)		0.2lb(0.1kg)		0.5lb(0.2kg)	
Pound	**Max Capacity**	250lb		500lb		1000lb	
	Division	0.1lb		0.2lb		0.5lb	
A/D Speed		20 times/second					
Tare Subtraction		Full Capacity					
Display below zero		" — " minus sign					
Excessive Weight		Maximum + 9d (display OUEr)					
Weight Display Type		LCD (5 digit + Sign, 1 Inch Height)					
Character Display		ZERO, TARE, BAT, POWER, CHARGE					
Keys		ON/OFF, ZERO, TARE, kg lb <—>(HOLD)					
Battery		7.2V , 2A (Li - ion)					
Power and Battery consumption		Use the Backlight		Not use the Backlight			
		0.45 W		0.17 W			
		Approximate 22 Hours		Approximate 58 Hours			
Operation Temperature		-10 ℃ ~ +40 ℃					
Rechargeable Adapter		110/220VAC 12V, 1.5AH					
Rechargeable Time		4 ~ 5 Hours					
Low BAT & Power Off		LOW BAT : Below of 6.7V, POWER OFF : 6.4V					
WEIGHT		Approx. 5.5kg					

DESCRIPTION OF OVERALL

1. OVERALL VIEW



2. DISPLAY



3.LAMP of DISPLAY PART(Front body)

LED	**Power**	ON	Being connected the Adapter		
	Charge	RED	In charge	GREEN	Charge is completed
	Remocon	Receiving part from remote controller			
LCD	**BAT**	Display the battery recharging time (rechargeable battery)- about 6.7V remain			
	-	Below zero			
	ZERO	ON when current weight is 0			
	TARE	ON when tare is activated			
	OZ/lb/kg	Weight Unit			

4. KEY

KEYS	FUNCTIONS
ON OFF	Power is ON while pressing for 1 second Power is OFF while pressing for 2.0 seconds
	Above function is possible while the power switch on the rear part is ON Please turn off the power switch on rear part when not use for a long time.
ZERO	It makes the current weight within the zero range to zero (±2% of maximum capacity) Pressing ZERO key for 2 second, can enter the TEST Mode
TARE	It is used to weigh with a container If press the tare key at unload state, Tare state is released Pressing the ON/OFF key while tare key is pressed, can enter the SET Mode
HOLD	It is used to weigh the moving things If you press this key once more in the hold mode, hold state is released (at AVERAGE HOLD, at MANUAL HOLD, at PEAK HOLD)
kg◂▸lb	It is used to change the unit of weight(kg<->lgToggle _ U.S.A. version) This key is not operated in the area which lb unit is used only

5. REAR PART

POWER	Power Switch
	Main Power Switch (If use, you have to turn on this switch)
Jack Cover	Charger Adaptor connector
	If you want to recharge the battery, Connect to the adaptor.

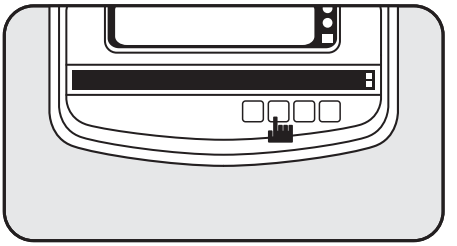
THE OPERATION

1. POWER ON

■ Press "ON/OFF" key.

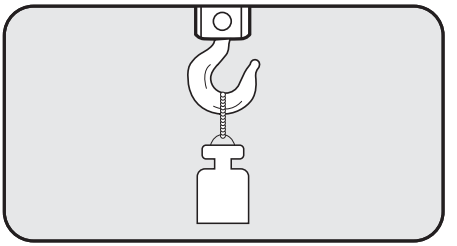
2. ZERO OPERATION

■ Press "ZERO" key when the zero point is drifted.

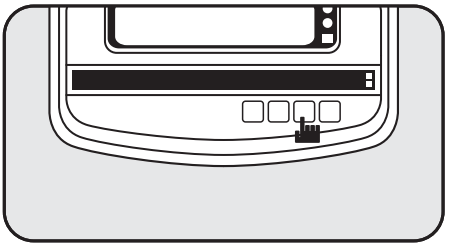


3. TARE OPERATION

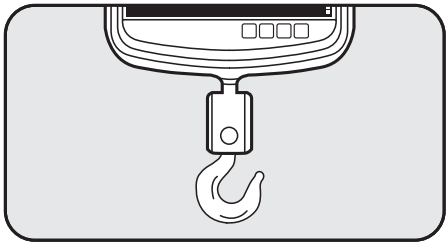
■ Load tare on the hook.



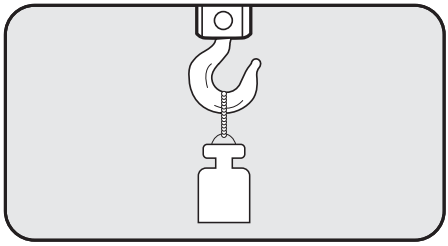
■ Press "TARE" key.
"0" is displayed, and the tare is subtracted.



■ Remove tare on the hook.

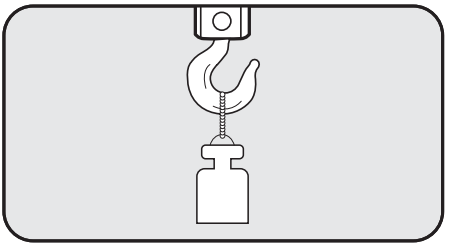


■ Press "TARE" key.
The tare weight is cleared appers in the display window.

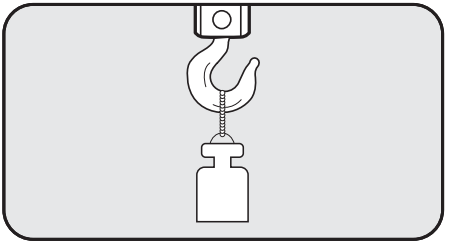


4. UNIT CONVERSIONS

■ Place an item to be weight on the hook.(KILOGRAM MODE)



■ Remove weight on the hook.
■ Press "kg/lb" key.(POUND MODE)
■ Place an item to be weight on the hook.



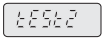
TEST MODE

How to enter TEST Mode

■ Pressing the ZERO key for 2 seconds in the normal mode, enter the test mode with display the message TEST 1 Press th HOLD key kg↔lb key to execute the test mode.(test2~5 is same sequence.)
I f press the HOLD key in the test mode, test mode is ended and then enter the normal mode.
(Ref. You can't enter the test mode while in the state of Hold or Tare.)

Test menu (tESt 1~5)

: Display Test


: Load Cell and A/D Conversion Test

: The IC(CPU) Temperature Test

: Battery Test

: Key Test

Available keys

KEYS	FUNCTIONS
ON OFF	Exit Test mode and then enter the Normal mode
ZERO	Use the backlight(only TEST 1)
HOLD or kg◂▸lb	Move the next menu and then execute TEST Mode

TEST 1

FUNCTION : LCD TEST

KEYS	LCD SCREEN	DESCRIPTION
ZERO : Backlight HOLD , kg◂▸lb : execute test1		Display TEST 1 state Display all digits on the screen

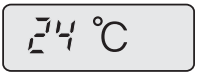
TEST 2

FUNCTION : Load Cell and A/D Conversion TEST

KEYS	LCD SCREEN	DESCRIPTION
HOLD or kg◂▸lb : execute test 2		Display TEST 2 state Display the digital value Corresponding to current weight

TEST 3

FUNCTION : The IC (CPU) Temperature TEST

KEYS	LCD SCREEN	DESCRIPTION
HOLD or kg◂▸lb : execute test 3		Display TEST 3 state Display the temperature of IC [CPU]

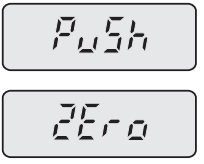
TEST 4

FUNCTION : Battery TEST

KEYS	LCD SCREEN	DESCRIPTION
HOLD or kg◂▸lb : execute test 4		Display TEST 4 state Display the current value of battery

TEST 5

FUNCTION : Key Test

KEYS	LCD SCREEN	DESCRIPTION
HOLD or kg◂▸lb : execute test 5		Display TEST 5 state Pressing the key to test shows (Power, Zero, Tare, HoLd)

SET MODE

How to enter SET Mode

■ Turn on the power while pressing [TARE] key , after displaying the message [SET] and then enter the SET Mode.
Return to the normal mode if you press the [HOLD] key or [kg↔lb] key long.

SET Menu (F0 F6)

Menu	Contents	Menu	Contents
F 0	Setting the value of Digital-Filter	F 4	Weight Backup
F 1	Setting the stable time of weight	F 5	Setting the hold type
F 2	Setting the stable range of weight	F 6	Setting the time of Auto Display Off
F 3	Setting the Back Light		

Available keys

KEYS	DESCRIPTION
[ON/OFF]	Menu Cycle (F0 ~F6F0)
[ZERO]	Increase the setting value
[TARE]	Decrease the setting value
[HOLD] or [kg↔lb]	Store the current setting value (Not exit)
[HOLD] or [kg↔lb]	After storing all setting value and then exit SET Mode

F 0

FUNCTION : Setting the value of Digital-Filter

KEYS	LCD SCREEN	Setting value	DESCRIPTION
ON/OFF, TARE HOLD, kg◂▸lb	F0-04	00 ~ 0.9	00 : Not use Digital-Filter (Speed of display conversion is fast) ~ 09 : Speed of display conversion is slow

F 1

FUNCTION : Setting the stable time of weight (step : 0.1 sec.)

KEYS	LCD SCREEN	Setting value	DESCRIPTION
ON/OFF, TARE HOLD, kg◂▸lb	F1-04	00 ~ 0.9	000 : Setting the time within 0.5 second 09 : Setting the time within 1.4 second

F 2

FUNCTION : Setting the stable range of weight (step : 0.5 division)

KEYS	LCD SCREEN	Setting value	DESCRIPTION
ON/OFF, TARE HOLD, kg◂▸lb	F2-04	00 ~ 0.9	00 : Setting the range within 0.5 division 09 : Setting the range within 4.0 division

F 3

FUNCTION : Setting the stable range of weight (step : 0.5 division)

KEYS	LCD SCREEN	Setting value	DESCRIPTION
ON/OFF, TARE HOLD, kg◂▸lb	F3-02	00 01 02 03	Always Off Always ON Back Light ON whenever weight is loaded Back Light ON Whenever the weight is stable

F 4

FUNCTIN : Weight Backup

KEYS	LCD SCREEN	Setting value	DESCRIPTION
ON/OFF, TARE HOLD, kg↔lb	F4-00	00 01	Not use Use (Zero, Tare, Status)

F 5

FUNCTION : Hold Type

KEYS	LCD SCREEN	Setting value	DESCRIPTION	
ON/OFF, TARE HOLD, kg↔lb	F5-00	00 ~ 0.9	Average Hold Peak Hold	Calculate the average of moving weight Calculate the peak of moving weight

Description of HOLD Function

1. When the F5 is set to 00

Case 1 (When the hold key is pressed in unloaded state) : Auto-Average Hold Function
If you press the Hold key in unloaded state, after displaying the AHoN and the Hold function Is started.
Just When the weight is changed(above the 1divison) , being displayed AHoFF and the changed weight is hold
If you want to release the Hold function, have to press Hold key in unloaded state certainly
When the Hold function is released, being displayed the message AHoFF

Case 2 (When the hold key is pressed in loaded state) : Manual Hold Function
When you want to hold the current weight, just press Hold key.
After displaying the HoLoN and the Hold function Is started.

In Hold state

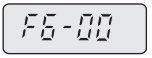
- if the weight is not changed, the current weight is not changed
- if the weight is changed(above the 10% of Max capa), the current weight is changed and the Hold function is released
- Whenever unloaded states, the Hold function is released automatically
- Also you want to release the Hold function, have to press Hold key in unloaded state certainly
- If Hold function is released, you can see the massage .

2. When the F5 is set to 01

The maximum value of weight is showed when the Hold key is pressed
If the Hold key is pressed once, the peak Hold function is started
If Hold function is released, you can see the massage .
If the Hold key is pressed again, the Hold function is released
If Hold function is released, you can see the massage .
(Ref> If the weight is 0 lb or 0 kg, this function is not operated.)

F 6

FUNCTION : Setting the time of Display off automatically

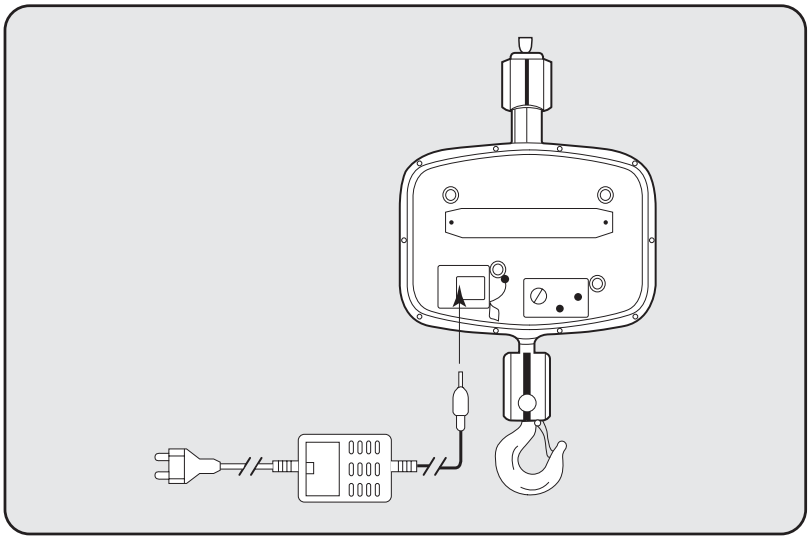
KEYS	LCD SCREEN	Setting value	DESCRIPTION
ON/OFF , TARE HOLD , kg◂▸lb		00 01 02 03	Not use Display all off in 3 minutes Display all off in 6 minutes Display all off in 9 minutes

Ref. 1. Operates the function of F6 which anything is set when the weight is in zero state.
2. The Display is ON when the weight is not in zero state or when the any key In the remote controller and front cover is pressed

BATTERY OPERATION

1. CHARGE

A. The rechargeable battery inside the NC scale must be charged using the voltage which don't exceed ±10% of the voltage indicated on the adapter.
B. If the voltage for charging exceed the above limit, the battery would be damage.
C. Check if an output voltage is DC 12V 1.5A.
D. Remove ADAPTOR JACK COVER of REAR PANEL and connect adaptor with an scale like the following figure.



E. If adaptor is connected with the scale, Red lamp is on(Power) and Charge lamp is on(Red : charge, Green : complete charge)
F. Time of charge is approximate 4~5 hours.
G. If main power switch is off, charge is not operate.(Red lamp is blinking.) Do check main power switch(Main power switch is located Rear panel)

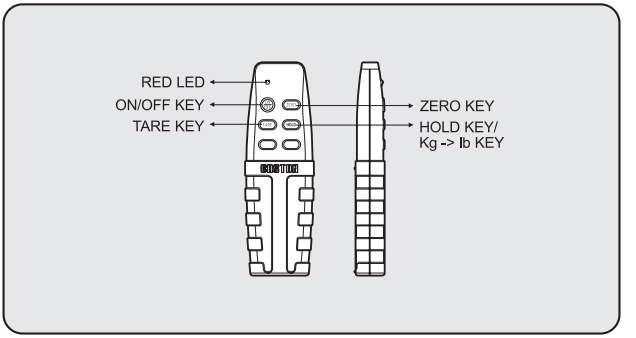
2. Discharge

If you use the battery continuously, discharge time is as fallows.
A. with the backlight -> approximate 22 hours
B. without the backlight -> approximate 50 hours

3. LOW BATTERY("BAT.") SIGNAL

A. To protect over-discharge of Battery, A. To protect over-discharge of Battery,
BAT LAMP is on when battery has to be charge. (80% of full charged voltage)
B. A scale turns power off automatically below the fixed voltage
(75% of full charged voltage). You can show LobAt message before turn power off.
BAT LAMP is on when battery has to be charge.
(80% of full charged voltage)
C. A scale turns power off automatically below the fixed voltage
(75% of full charged voltage).
You can show LobAt message before turn power off.

REMOTE CONTROL



■ FUNCTION

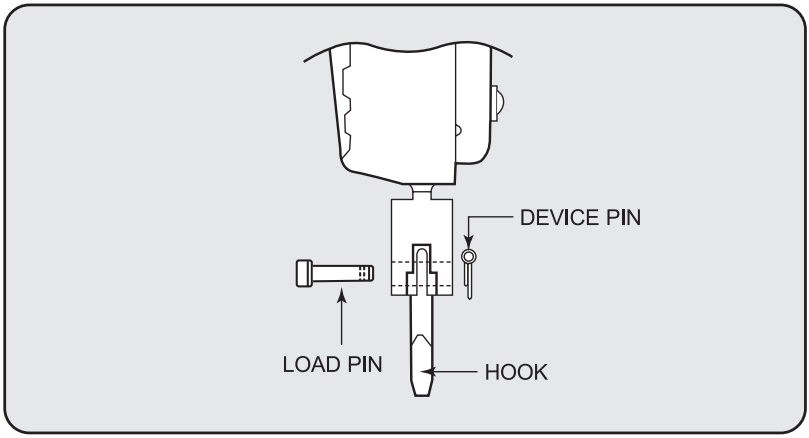
RED LED	Blinking whenever key is pressed
ON/OFF KEY	Display ON/OFF(Toggle)
ZERO KEY	It makes the current weight within the zero range to zero (2% of maximum capacity)
TARE KEY	It is used to weigh with a container
HOLD KEY/ Kg -> lb KEY	It is used to weigh the moving things It is used to change the unit of weight (kg < - > lb Toggle _ U.S.A. version)

※ Remote controller is working within 60 ℃ and distance of 7~10m

■ **POWER**

Voltage	1.5V
Size	AA Size(14.5 X 50.5 m/m) - Battery
Note on the replacing battery	Place batteries in correct polarity(+)(-)direction.
	Do not use new batteries with the used

ASSEMBLE AND DISASSEMBLY



ERROR MESSAGES & TROUBLE SHOOTING

Err 01

■ Cause
The Indicator can't be initialized due to platform shaking

■ Management
Put the platform on a flat place without shaking and power on
If you can see the same massage continuously, call your CAS dealer please.

Err 02

■ Cause
Initial A/D value of zero is too high or low, when the power is ON
Or in the case of NC-I is lying on the flat

■ Management
Check that the load cell is well connected with main unit
Or calibration is done wrongly
Don't lie the NC-1 on the flat
If you can see the same massage continuously, call your CAS dealer please.

Err 09 (Zero Key)

■ Cause
The current weight exceeds zero range (2 % of Maximum Capacity)

■ Management
Unload the scale
If you can see the same massage continuously, call your CAS dealer please.

Err 13 (Zero Range when the Power is ON)

■ Cause
The initial zero range exceeds above 10% of maximum capacity

■ Management
Unload the scale
If you can see the same massage continuously, call your CAS dealer please.

BAT or LobAt

■ Cause
Need to recharge of battery
(After display LobAt , the power is off automatically in 2 second)

■ Management
Connect the adaptor with outlet of charge battery of rear part
(Charging time is about 4~5 hours)
If you can see the same massage continuously, call your CAS dealer please.

oUEr

■ Cause
Too heavy object is put on platform so that it may exceed the maximum capacity

■ Management
Never put the weight exceeding the maximum capacity
If you can see the same massage continuously, call your CAS dealer please.
If the load cell is damaged, replace the load cell

* Ref. The function of this manual can be changed without previous warning !!

MEMO

MEMO

MEMO

NC-I SERIES

Crane Scale

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Specifications are subject to change for improvement without prior notice.

9002-NC1-0033-2 2009.09